



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/475,135	12/30/1999	HYEK SEONG KWEON	465-647P	5994
7590	06/22/2005		EXAMINER	
BIRCH STEWART KOLASCH & BIRCH LLP P O BOX 747 FALLS CHURCH, VA 220400747			YENKE, BRIAN P	
			ART UNIT	PAPER NUMBER
			2614	

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/475,135	KWEON ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	BRIAN P. YENKE	2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on Amendment (30 July 04)/Resp (12 Apr 05).

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-26 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-26 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date .  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## **DETAILED ACTION**

1. In the previous action mailed 12 Jan 05, the examiner erroneously checked the Non-Final Rejection box, although the action was a Final Rejection as stated in the rejection. Thus the examiner is providing the previous action now as a Final Rejection. The examiner has also attached the examiner's response to the applicant's arguments from the previous rejection.

In response to the arguments filed in response to the 12 Jan 05 rejection.

The applicant argues that Suh does not disclose an onscreen menu. However, the applicant does state that Suh discloses a screen selection menu. Thus the examiner maintains that a screen selection menu is an onscreen menu. The applicant states that the examiner did not provide evide regarding the use of an interactive menu display screen and interactive menu elements being displayed/utilized. The examiner disagrees, the examiner specifically incorporate the Chor reference for that very reason. The applicant states that Chor does not resize menu icons. The examiner incorporated the Funakoshi reference for this limittation as shown in the rejection. The applicant states that Funakoshi only discloses changing the size or shape of menu display letter for a selected menu item. The examiner agrees. The examiner relied on Suh for automatically resizing elements based upon the screen mode (where one picture may be larger than the other). Thus in the even a picture is being displayed in the main screen, and the user desires that picture in the smaller (PIP window) the items/elements in that picture have to be reduced, this point has been covered throughout prosecution.

2. Applicant's arguments, see Amendment , filed 30 July 2004, with respect to the rejection of claim under Suh and Chor have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Suh/Chor and Funakoshi.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suh US 5,831,591 and Chor et al., US 6,141,003 in view of Funakoshi et al., US 2002/0060749.**

In considering claims 1-2 and 26,

*a) the claimed setting a screen display mode...* is met microcomputer 110 which can display two screens as shown in Fig 3c/d/e.

*b) the claimed automatically sizing displayed elements...* is met where Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

*c) the claimed determining whether or not a menu key is input* is met by microcomputer 110 which recognizes the (screen mode) key input via user (Fig 1&4) (col 1, line 43-60) and information processing unit 210 which also receives a key input via user. Where the display can display a 1<sup>st</sup> television signal, 2<sup>nd</sup> television signal, and also various kinds of communication services transmitted via the VAN, such as stock market quotes, news, weather or TV information (col 1, line 36-52).

*d) the claimed determining a current screen display mode...* is met microcomputer 110 which controls the operation of the double window processing according to a selected screen mode.

*e) the claimed displaying a menu element...* is met by double window processing unit 100 which receives instruction from information processing unit 210 via microcomputer 110 to display the appropriate source(s) on the desired menu mode selected by the user (Fig 3A-3E). As to the *automatically resizing said menu element in accordance with the size of the screen on which the menu is displayed* is met where based upon the display mode (Fig 3A-3E) will automatically resize the screen to the desired setting, which will automatically resize the elements on that screen into the new desired size. Although, a dual picture mode the size of the elements will be smaller than if a single picture were displayed, they are still viewable by a user (i.e. easily discriminated).

However, Suh remains silent on (b) displaying interactive program information and displaying an interactive menu element including an icon.

Suh discloses a system which is able to display based on the user's desired mode (col 4, line 13-20) via a key input signal to display the selected signals which includes main video signal (TV1), Sub Video signal TV and communication services transmitted via VAN (menu information) (i.e. stock market quotes, news, weather or TV information).

The use of interactive program information and interactive menu elements including an icon being displayed/utilized, is notoriously well-known in the art.

The examiner nonetheless provides Chor et al., US 6,141,003, which discloses a graphical user interface using a channel bar with icons to assist the viewer while navigating channels. As shown in the Figures 2-7, the user is able to select, view information on the channel bar/menu by selecting the appropriate icon/program information (i.e. the user can select

find show (142, Fig 6) or windows icon 146 (Fig 6) which allows a viewer to transition between a full screen mode of operation and a window mode of operation (col 9, line 65-66).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify/utilize Suh which discloses a menu screen which includes stock market information, news, weather or TV information with Chor by using an interactive program information and interactive icons in a menu screen, in order to provide the user the ability to interact/select the information (program/icon) of interest.

However, neither the combination of Suh nor Chor disclose resizing the menu element other than a default size.

Although changing the size of a selected menu option is conventional in the art in order to illustrate/distinguish to the viewer the selection element, the examiner nonetheless incorporates Funakoshi, which discloses such a system (Figs 4-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Suh/Chor combination which discloses a interactive menu screen with Funakoshi by distinguishing the selected item from the non-selected menu items, in order to provide the user a menu selection process, which visibly illustrates a selection.

In considering claims 3-6, 14

Suh discloses that various display modes can be used where one picture is display entirely on the screen (Fig 3A/B), where one source is overlayed onto another source i.e. submenu (Fig 3C) or a dual side-by-side display (Fig 3D/E).

In considering claims 7-10,

Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

In considering claim 11,

- a) the claimed setting a screen display mode...* is met microcomputer 110 which can display two screens as shown in Fig 3c/d/e.
- b) the claimed automatically sizing displayed elements...* is met where Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.
- c) the claimed setting one of the plurality of screens* is met where the user via key input can select a desired screen mode (Fig 1, 3A-E, 4)(col 1, line 43-60) and information processing unit 210 which also receives a key input via user. Where the display can display a 1<sup>st</sup> television signal, 2<sup>nd</sup> television signal, and also various kinds of communication services transmitted via the VAN, such as stock market quotes, news, weather or TV information (col 1, line 36-52).
- d) the claimed displaying a menu element* is met where microcomputer 110 controls (in addition to relaying signals from information processing unit 210) to double window processing unit 100 display the desired source(s) in the selected display mode (Fig 3A-E). As to the *automatically resizing said menu element in accordance with the size of the screen on which the menu is displayed* is met where based upon the display mode (Fig 3A-3E) will automatically resize the

screen to the desired setting, which will automatically resize the elements on that screen into the new desired size.

However, Suh remains silent on (b) setting a screen as an interactive menu display screen and displaying an interactive menu element.

Suh discloses a system which is able to display based on the user's desired mode (col 4, line 13-20) via a key input signal to display the selected signals which includes main video signal (TV1), Sub Video signal TV and communication services transmitted via VAN (i.e. stock market quotes, news, weather or TV information).

The use of interactive menu display screens and interactive menu elements being displayed/utilized, is notoriously well-known in the art.

The examiner, provides Chor et al., US 6,141,003, which discloses a graphical user interface using a channel bar with icons to assist the viewer while navigating channels. As shown in the Figures 2-7, the user is able to select, view information on the channel bar/menu by selecting the appropriate icon/program information/menu (i.e. the user can select find show (142, Fig 6) or windows icon 146 (Fig 6) which allows a viewer to transition between a full screen mode of operation and a window mode of operation (col 9, line 65-66).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify/utilize Su which discloses using a menu screen which includes stock information, news, weather or TV information, with Chor by using interactive menu screen with interactive elements, in order to provide the user the ability to interact/select the information (menu) of interest.

However, neither the combination of Suh nor Chor disclose resizing the menu element other than a default size.

Although changing the size of a selected menu option is conventional in the art in order to illustrate/distinguish to the viewer the selection element, the examiner nonetheless incorporates Funakoshi, which discloses such a system (Figs 4-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Suh/Chor combination which discloses a interactive menu screen with Funakoshi by distinguishing the selected item from the non-selected menu items, in order to provide the user a menu selection process, which visibly illustrates a selection.

In considering claim 12,

Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

In considering claim 13,

- a) *the claimed displaying a picture and displaying elements* is met where microcomputer 110 controls (in addition to relaying signals from information processing unit 210) to double window processing unit 100 display the desired source(s) in the selected display mode (Fig 3A-E).
- b) *the claimed determining whether a menu key is input* is met by microcomputer 110 which recognizes the (screen mode) key input via user (Fig 1&4) (col 1, line 43-60) and information

processing unit 210 which also receives a key input via user. Where the display can display a 1<sup>st</sup> television signal, 2<sup>nd</sup> television signal, and also various kinds of communication services transmitted via the VAN, such as stock market quotes, news, weather or TV information (col 1, line 36-52).

*c) the claimed determining which display mode...* is met microcomputer 110 which controls the operation of the double window processing according to a selected screen mode.

*d) the claimed dividing said TV screen...* is met where TV microcomputer 110 recognizes a key input to control the double window processing unit 100 and for receiving and transmitting data in series with an information processing unit 210 (col 2, line 43-67)(Fig 3A-E)

*e) the claimed setting one of said first or second sub-display screens* is met by information processing unit 210 which outputs a switching control signal SW1-3 based on the desired display (col 7, line 36-40).

*f) the claimed automatically resizing* is met where based on the user selected key input, CPU 211 read data from ROM 212 which stores the necessary program operations for font data, and the required decoding of program and data. Where based upon the display mode (Fig 3A-3E) will automatically resize the screen to the desired setting, which will automatically resize the elements on that screen into the new desired size.

*g) the claimed displaying* is met where the selected signals are displayed on CRT 140. Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

However, Suh remains silent on (b) displaying an interactive menu, (e) interactive menu display screen and (a)/(f) icons/interactive icons.

Suh discloses a system which is able to display based on the user's desired mode (col 4, line 13-20) via a key input signal to display the selected signals which includes main video signal (TV1), Sub Video signal TV and communication services transmitted via VAN (i.e. stock market quotes, news, weather or TV information).

The use of interactive program information and interactive menu elements including an icon being displayed/utilized, is notoriously well-known in the art.

The examiner, provides Chor et al., US 6,141,003, which discloses a graphical user interface using a channel bar with interactive icons to assist the viewer while navigating channels. As shown in the Figures 2-7, the user is able to select, view information on the channel bar/menu by selecting the appropriate icon/program information (i.e. the user can select find show (142, Fig 6) or windows icon 146 (Fig 6) which allows a viewer to transition between a full screen mode of operation and a window mode of operation (col 9, line 65-66).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify/utilize Su which discloses a menu screen which includes stock market information, news, weather or TV information with Chor by using an interactive program information and interactive menus with icons in a menu screen, in order to provide the user the ability to interact/select the information (program/icon) of interest.

In considering claims 15-17,

Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode, thus automatically resizing the screen and elements.

In considering claim 18,

*a) the claimed determining whether a menu key is input* is met by microcomputer 110 which recognizes the (screen mode) key input via user (Fig 1&4) (col 1, line 43-60) and information processing unit 210 which also receives a key input via user. Where the display can display a 1<sup>st</sup> television signal, 2<sup>nd</sup> television signal, and also various kinds of communication services transmitted via the VAN, such as stock market quotes, news, weather or TV information (col 1, line 36-52).

*b) the claimed determining which display mode...* is met microcomputer 110 which controls the operation of the double window processing according to a selected screen mode.

*c) the claimed dividing said TV screen...* is met where TV microcomputer 110 recognizes a key input to control the double window processing unit 100 and for receiving and transmitting data in series with an information processing unit 210 (col 2, line 43-67)(Fig 3A-E)

*d) the claimed setting one of said first or second sub-display screens* is met by information processing unit 210 which outputs a switching control signal SW1-3 based on the desired display (col 7, line 36-40).

*e) the claimed automatically sizing...* is met where based on the selected/desired screen will initially reduce or increase the size of the selected element and screen.

*f) the claimed automatically resizing* is met where based on the user selected key input, CPU 211 read data from ROM 212 which stores the necessary program operations for font data, and the required decoding of program and data. Where based upon the display mode (Fig 3A-3E) and size of the character/elements, will automatically resize the screen to the desired setting, where the resizing of the icons would be based on the ratio between the size of the element and the size of the screen in order to maintain a proportional image being resized.

*g) the claimed displaying* is met where the selected signals are displayed on CRT 140. Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

However, Suh remains silent on (a) displaying an interactive menu, (d) interactive menu display screen and (e) interactive icons.

Suh discloses a system which is able to display based on the user's desired mode (col 4, line 13-20) via a key input signal to display the selected signals which includes main video signal (TV1), Sub Video signal TV and communication services transmitted via VAN (i.e. stock market quotes, news, weather or TV information).

The use of interactive program information and interactive menu elements including an icon being displayed/utilized, is notoriously well-known in the art.

The examiner, provides Chor et al., US 6,141,003, which discloses a graphical user interface using a channel bar with interactive icons to assist the viewer while navigating channels. As shown in the Figures 2-7, the user is able to select, view information on the

channel bar/menu by selecting the appropriate icon/program information (i.e. the user can select find show (142, Fig 6) or windows icon 146 (Fig 6)

which allows a viewer to transition between a full screen mode of operation and a window mode of operation (col 9, line 65-66).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify/utilize Su which discloses a menu screen which includes stock market information, news, weather or TV information with Chor by using an interactive program information and interactive menus with icons in a menu screen, in order to provide the user the ability to interact/select the information (program/icon) of interest.

However, neither the combination of Suh nor Chor disclose resizing the menu element other than a default size.

Although changing the size of a selected menu option is conventional in the art in order to illustrate/distinguish to the viewer the selection element, the examiner nonetheless incorporates Funakoshi, which discloses such a system (Figs 4-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Suh/Chor combination which discloses a interactive menu screen with Funakoshi by distinguishing the selected item from the non-selected menu items, in order to provide the user a menu selection process, which visibly illustrates a selection.

In considering claim 19,

Suh discloses that various display modes can be used where one picture is display entirely on the screen (Fig 3A/B), where one source is overlayed onto another source i.e. submenu (Fig 3C) or a dual side-by-side display (Fig 3D/E).

In considering claims 20-21,

Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

In considering claims 22-25,

The combination of Suh/Chor/Funakoshi does not explicitly recite a menu screen which permits the scrolling of a menu element. Nevertheless, such a system is notoriously well known in the art and the examiner takes “OFFICIAL NOTICE” regarding such a device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Suh/Chor and Funakoshi which discloses an interactive menu screen which distinguishes the selected item from the non-selected menu items in order to provide the user a menu selection process, which visibly illustrates a selection, with conventional menu features in order to allow the user to scroll/peruse through menu items and allowing the user select items of interest.

### Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure—see newly cited references on attached form PTO-892.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (571)272-7359. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (571)272-7352.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(571)-273-8300**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

General information about patents, trademarks, products and services offered by the United States Patent and Trademark Office (USPTO), and other related information is available by contacting the USPTO's General Information Services Division at:

800-PTO-9199 or 703-308-HELP

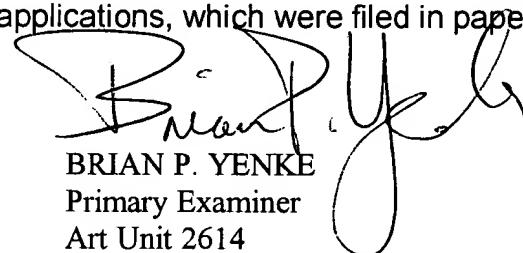
(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and submit information and applications. The tools currently available in the Patent EBC are Patent Application Information Retrieval (PAIR) and the Electronic Filing System (EFS). PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



BRIAN P. YENKE  
Primary Examiner  
Art Unit 2614



B.P.Y  
18 June 2005